

HVAC

When it comes to offering climate control, our office systems are offered with several options.

Pre-charged Modular Central HVAC

The exclusive Starrco design allows us to provide a complete self-contained central air conditioning and heating system for any office larger than 800 square feet. What makes the system unique is that the installation can be handled by anyone. We have designed it to allow someone with no experience with HVAC systems to install the system quickly and accurately.

Included with the design are a pre-charged air handler (the Freon is already added to the unit), modular ductwork, ceiling diffusers, air return grilles, flexible ductwork and an electronic thermostat. We even provide the duct tape, staple gun, staples and duct cutter. A complete set of installation instructions and step-by-step detailed drawings is supplied with each system.

Thru-Wall Air Conditioners and Combination A/C-Heat Units

For smaller in-plant offices and pre-assembled buildings, we offer General Electric brand air conditioner/heater combination units. These commercial grade units feature an adjustable thermostat, a separate evaporating fan system to reduce condensation*, a washable air filter and energy saver controls.

Heating & Ventilation

We can supply commercial grade wall mounted fan forced heaters. The heaters are low profile (less than 4" deep) and have an adjustable thermostat. We can also provide baseboard heaters for those customers who want a radiant heating system for their office. For ventilation, we offer Broan brand ceiling mounted exhaust fans in a variety of sizes to handle almost any application.

**The self evaporating units greatly reduce the amount of condensation generated but they do not eliminate it entirely. In high humidity conditions, the units will still drip. The Starrco system includes a drain kit (for NC and HVAC units) to allow for the connection of a drain line, if needed.*

HVAC Unit Spec Sheets (see these PDF files for more information)

GE® 115v Built-In Room Air Cool Unit – Model # AJCH08ACB
GE® 115v Built-In Room Air Cool Unit – Model # AJCH10ACB
GE® 115v Built-In Room Air Heat/Cool Unit – Model # AJES08ASB
GE® 230/208v Built-In Room Air Cool Unit – Model # AJCH12DCB
GE® 230/208v Built-In Room Air Heat/Cool Unit – Model # AJEH12DCB
GE® 230/208v Built-In Room Air Heat/Cool Unit – Model # AJCS09DCB
Heil® PA55 Series Packaged Air Conditioner

HVAC Formulas

The HVAC design formulas shown below are based upon normal conditions and should only be used as a general guide. For extreme or demanding conditions, we recommend consulting with an architect or qualified environmental engineer to design an HVAC system for your specific requirements.

Heating

Heater sizing formula – 7 watts of heat per square foot of floor space

Example:

10' x 20' room = 200 square feet
200 sq. ft. x 7 = 1400 watts of heat required
(Note: 1 watt = approximately 3.4 BTU's)

Ventilation

The ventilation required within a room depends on a couple of factors: 1) Occupancy -- the number of people normally in the room; and 2) Usage – lunchrooms or conference rooms may require more ventilation.

General rule of thumb – changing the air in the room every 10 minutes is sufficient

Example:

10' x 20' room with 8' ceiling height = 10'x20'x8' = (1600 cubic feet)
1600 cu. ft. / 10 minutes = 160 cu. ft. per minute (CFM); therefore,
A 160 CFM fan should be adequate for this room.

Note: If smoking is allow in the room, the air should be changed every three minutes.

Air Conditioning

Air conditioner sizing formula – 30 BTU's of cooling per square foot of floor space

Example:

10' x 20' room = 200 square feet
200 sq. ft. x 30 BTU's = 6,000 BTU's of cooling required

If the room is going to be heavily occupied (i.e. lunchroom, conference room) or located near a heat producing piece of equipment, the amount of air conditioning should be increased. A good rule of thumb is to add 500 BTU's for each person in the room.

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